

13. The motor of claim 12 wherein said motor is a variable reluctance motor.

## Abstract of Disclosure

The invention provides a method and apparatus for maintaining the force, or torque, delivered by a variable reluctance motor as the speed of the motor increases. The method comprises the steps of sensing the speed of the motor and varying the number of turns of the motor's phase coil based on the sensed speed. The apparatus includes a motor speed sensor for sensing the speed of the motor and an inductance switch for switching the number of turns of the phase coil from a first value to a second value based on the sensed speed. One embodiment of the invention includes an inductance compensation circuit to compensate for the change in load inductance when the number of turns of the phase coil is switched.